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ABSTRACT

The recent renewed interest in second language and international studies is viewed from a national perspective and from the perspective of statewide planning in Illinois. According to the review, one reason for the increased interest in the relevance of foreign language and international studies is a series of national and state reports recommending improvement in those areas for reasons of economic development and national security needs. Relevant statistics on international trade and the labor market are noted, and the role of language proficiencies in science, technology, and research for economic development is defined. Two converging trends are outlined: the trend toward a consensus in both the education and business communities regarding the essential role and accelerated demand for language and international proficiencies in interconnected state, national, and world economies, and the corresponding trend in higher education toward internationalized curriculums. These courses of study are characterized by combinations of majors in professional disciplines, such as business, economics, law, and agriculture, with second language and international studies. (Author/MSE)

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EDUCATION IN THE WORLD SYSTEM: THE DEMAND FOR LANGUAGE AND INTERNATIONAL PROFICIENCIES IN ECONOMIC DEVELOPMENT AND NATIONAL SECURITY

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Introduction

World System: An Integrative Approach to Problem-Solving

> "Concern and controversy over the state of the world is currently growing at an exponential rate. Debate and discussion focuses on mankind's response to what may be an impending crisis [affecting] the world system, composed of the human population of the earth together with its technology and life-supporting ecology."[1]

When Ervin Laszlo, the eminent systems philosopher, wrote this introductory passage to his book on The World System twelve years ago, concerned scientists and humanists were stimulating lively public discussion of world problems in order to raise public awareness to a level of global consciousness, to define problems in a context of global interdependencies, and to propose adequate human responses to complex, interrelated problems. These concerns remain with us today, and voices like those of Ervin Laszlo carry still fresh reminders of the work yet to be done. Laszlo argued convincingly that if mankind's response to the problems affecting the world system was to be effective, it must be based on "a systems model, capable of mapping an entire array of interacting variables and their effect on the state of the world over time."[2]

From such a systems perspective, today we can see education and economic development - second language and international proficiencies in state, national, and world economies - as

interacting variables in the world system. When the System Dynamics Group at the Massachusetts Institute of Technology (MIT) constructed the first computerized model of the world system in 1972, one hundred thousand variables were included.[3] The model, though incredibly complex, proved insufficient, and further attempts to clarify the workings of the global system produced a second model in 1974 that included interrelations of material problems, such as physical resources, with changes in the value system.[4] Further refinements produced other models that accorded attention to previously ignored variables.[5]

Completeness of the variables was and remains one of the fundamental issues of world system modeling. Second language and international proficiencies have only recently begun to figure as a legitimate variable in the interrelations of state, national, and world economies.[6] Other, perhaps more potent variables are fiscal, monetary, and trade policies. What is said in the following about state and national demand for language and international proficiencies for commerce and research for economic development is not to imply ignorance or disregard for the function of fiscal, monetary, and trade policies in the challenges of trade in the world economy facing any state and the nation. A world system perspective that considers the interaction of multiple variables implicitly rejects monocausality - that is, claims that factor X causes

factor Y. Hence, this article makes no claim that improved and expanded second language and international studies alone will produce all necessary changes in state and national economies. Further, looking at education in the world system, rather than just education in any one of the United States, establishes at the outset a conceptual framework that takes account of multiple interrelations and thus avoids the reductionist fallacy of partial problem-solving.[7] This planning framework based on systems theory accommodates information drawn from any discipline or perspective: it is interdisciplinary and international (global) in scope.

Background: Proposals for Educational Improvement

In the last few years, there has been a growing interest in second language and international studies in the schools, colleges, and universities of the nation.[8] Articles in the press, referring to global interdependence and the world economy, have contributed to an awareness of the essential role of global understanding and communication in attaining state and national goals.

For practical as well as philosophical reasons, the status of global literacy and communication skills in the nation is reevaluated from time to time and recommendations for improvements are made. In 1979, the President's Commission on Foreign Language and International Studies presented its report

and recommendations.[9] Citing declining enrollments and course offerings with concurrent increases in demand, the Commission made program and policy proposals to improve and expand second language and international studies at the elementary, secondary, and postsecondary levels of education. Second language and international studies were included in recommendations made by the National Commission on Excellence in Education in 1983, and the National Advisory Board on International Education assessed critical needs and also made recommendations for action in 1983.[10]

Second Language and International Studies: Educational and Pragmatic Significance

All of these proposals advance educational as well as pragmatic reasons for improving and expanding second language and international studies. Learning a second language and attaining global literacy was properly considered first and foremost an essential part of any meaningful concept of basic education. At the same time there was an increasing awareness of the practical benefits of second language and international studies as a functional part of training and pre-professional education. Focusing on one or the other topic does not imply losing sight of either the educational or the pragmatic benefits of second language and international studies. Thus, while this article outlines state and national demand for language and international proficiencies in such areas as commerce,

diplomacy, research, and information management, and the jobs that go with that demand - all a soberingly practical enterprise, the title of the article nevertheless refers to education in the world system, rather than to training - job training. This is in implicit acknowledgment of the primarily educational value of second language and international studies.

The Demand for Language and International Proficiencies

Needs of the Nation

World Economy. More than at any previous time in our history, the economic decisions and actions of other countries affect our economy. As Senator Dodd told the Congress in September 1985, "we depend more than ever on world markets to sustain our sales, profits, and jobs."[11] International trade now accounts for 25% of our gross national product. 40% of U.S. farmland produces for export, and 20% of U.S. industrial output is sold abroad. Altogether, one in five Americans depends on international trade for employment, as some 7,000 U.S. companies conduct business in other countries.[12]

Structural changes in the world economy anticipated in the next two decades will impose new demands on nations with vital interests in that economy. In that relatively short span of time, population in the developing countries will increase to more than five billion - more than the entire world population

today.[13] U.S. firms that do not adjust rapidly to the new demands of the changing world economy, in particular learning about and responding to local needs in other countries, may soon find themselves unwelcome. Inevitably, the U.S. share of world markets will continue to decline. In the past decade and a half, that share has already diminished from 15.4% to 12.4%.[14]

Commerce, Diplomacy, Defense, and Education. Extensive testimony on national needs for second language and international studies in commerce, diplomacy, defense, and education was presented to the U.S. Congress from 1981 through 1984 on the occasion of hearings before the House Subcommittee on Postsecondary Education concerning the proposed "Foreign Language Assistance for National Security Act."[15] This bill (S1631) was reintroduced in Congress by Senator Simon in September 1985. There was an expressed sense in the testimony from a variety of publics that the gap between supply and demand, between capabilities and needs in foreign language and culture competencies grows ever wider at ever greater peril to the conduct of our national affairs in defense, diplomacy, commerce, and education. The effects of that gap were also reported in 1984 by the Commission on International Education.[16] The following statements are examples of testimony before Congress.[17]

The former Deputy Director of the Central Intelligence Agency, Admiral Bobby Inman, told Congress that "the

deteriorating language study programs of this country are presenting a major hazard to our national security."

An executive in the Florida Department of Commerce, Manuel Mencia, testified : "I have seen many monolingual Americans learn the sad lesson through lost opportunities and contracts that the most important language for business is really the language spoken in the country of your potential client."

The Executive Vice President of Ford Motor Company, John McDougall, stated: "A combination of foreign language ability and business expertise is now needed and will be required even more in the future by U.S. companies if they are to compete successfully in world markets." But current language inadequacies, Manuel Mencia concluded, have "created a self-enacted trade barrier more effective than any protective barrier ever established."

Business Earnings. The number and economic impact of lost business opportunities, contracts, and sales in international commerce due to lack of communication skills in the client's language can only be estimated. For example, when the General Motors Nova was introduced into the Latin American market, there were few sales. "No va" in Spanish means "it doesn't run"; hence the name Nova was equivalent in meaning to "lemon." When the car's name was changed to Caribe, sales improved immediately. Another example is that of the executive of a large manufacturing firm in Kansas whose volume of business in

Spanish-speaking countries increased from none to over $20 million annually after he learned Spanish.[18]

Senator Bradley described, as an example, the difference in approach to world markets and international trade taken by Americans and Japanese:

> "While Japanese trade experts have invested considerable time and effort in learning our language and culture, U.S. trade experts have not made similar efforts to understand Japanese language and culture. Given the fact that we do not share a common cultural heritage with Japan, as we do with Western European trade partners, this lack of expertise will continue to work to the disadvantage of American companies who are seeking Japanese markets."[19]

Senator Bradley believes that a significant part of our trade difficulties with Japan stem in part from a fundamental dearth of knowledge about Japanese language and culture. An article in Science 85, citing the 1984 U.S. trade deficit with Japan of $37 billion, stated that the language imbalance is considerably greater than the trade imbalance.[20] That is, many more Japanese business representatives speak English than American business representatives speak Japanese. Unfamiliarity of American business representatives with Japanese language and culture produces notably inept business negotiations. For example, an American business representative tried to press doormats on a Japanese, not aware that people in Japan customarily remove their shoes before entering a home.

Job Training and Relocation. Private and public employers find themselves investing heavily in initial and remedial language and cross-cultural training with limited effectiveness in order to meet the on-the-job language proficiency needs of their employees. For example, it costs the federal government at least $30,000 (in present value dollars) to provide ten months of language training for one entry-level employee.[21] Further, there are heavy personnel relocation costs to U.S. companies. When Americans assigned overseas by their companies are unable to adapt to the host country due to unfamiliarity with its language and culture, they experience culture shock. According to the Director of the Business Council for International Understanding, more than a third of these Americans ask to be reassigned, and each reassignment costs the company an average of $200,000.[22]

Research for Economic Development. Proficiency in other languages plays an essential role in technology transfer for economic development. As other countries challenge and effectively compete with American research and technology, American scientists, engineers, researchers, and others engaged in the production and management of information find access to international data bases closed off. In other technologically advanced nations, technical journals are published in the national language, not in English.[23] When American scientists and researchers are faced with information in a language they do

not know, they ignore that research.[24] This creates gaps in the quantity, quality, and timely transmission of research knowledge.[25] For example, as an article in the September issue of Science 85 notes, neuroscience, the study of growth and development in the brain, has absorbed the significance of Ramón y Cajal's work only recently. Shortly after receiving the 1906 Nobel Prize in physiology and medicine, the Spanish neuroanatomist remarked:

> "The immense majority of biologists today are ignorant of the language of Cervantes. Consequently, in even the most recent publications in neurology, two-thirds of the modern contributions from Spain are unknown."[26]

As reported to members of the American Association for the Advancement of Science, in Congressional hearings on international science policy in June 1985 members of the scientific community testified that one of the prime constraints on timely and effective scientific information and technology transfer is "Americans' lack of foreign language skills."[27] Maintaining and improving U.S. science and research capability is predicated on effective action to remedy such constraints. Technology that has not been developed because of such gaps in research capabilities cannot be transferred for economic development.

Jobs. There is at present a large and increasing number of jobs in the American labor market requiring proficiency in other

languages and international understanding. The federal government has established a category of jobs in which foreign language capability is essential. More than 30% of these positions are not adequately filled, and the level of proficiency of many of the persons in the other positions is insufficient for effective job performance.[28] These unmet needs in language and culture competencies also compromise national security as insufficient numbers of people with adequate levels of proficiency are available to staff positions in the Departments of State and Defense. The State Department can fill only two of three positions in the Foreign Service that require even minimal language proficiency. Of the 13,000 positions in the Department of Defense that require language proficiency, only one of two are filled by persons with such proficiency. The CIA, NSA, and other intelligence agencies are not able to find the linguists needed to staff their increasingly sophisticated network of data collection and analysis. While national defense and international diplomacy are largely considered the responsibility of the federal government, states are not unaffected by the conduct of these affairs. Individual states contribute human and other resources and share the effects of the national government's management of defense and diplomacy.

Business schools in the U.S. graduate an estimated 1,000 students annually with majors in international trade, but

business leaders estimate that there are presently jobs available for at least 200,000 people with such training. It is also estimated that Americans lose out on 100,000 jobs a year because they do not know a second language. For example, most American firms doing business abroad, because they cannot find American business graduates with language skills, routinely hire foreign nationals to manage their business transactions in the world marketplace.

Individual States: Illinois as an Example

International Activities in Illinois. Data from the Illinois Department of Commerce and Community Affairs (DCCA) illustrate the scope of international business activities in Illinois.[29] For example, Illinois is second in the nation in dollar volume of all agricultural export commodities and third in dollar volume of exports of agricultural and manufactured products combined. Altogether, 505,000 persons in Illinois are employed in jobs related to agricultural and manufacturing exports. Reflecting the strong presence of international finance in Illinois, there are more than 50 international banks with branches or representative offices in Chicago as well as 10 major U.S. banks that maintain offices for international clients. In addition, more than 60 nations have consulates or trade offices in Illinois, a number which ranks the state third in the nation and which demonstrates "the importance of Illinois as a force in international trade."[30] The Latin American

Chamber of Commerce in Chicago has been active for a decade in promoting new business opportunities in hemispheric trade for Illinois industries. Also, the Governor and other officials in Illinois government have become increasingly active in international diplomacy to promote the international trade initiatives of Illinois business, financial institutions, and agricultural concerns. In 1984 and 1985, Governor Thompson led trade and investment missions to Europe and to Japan. The International Business Division of the Illinois Department of Commerce and Community Affairs maintains state Bureaus in Belgium, Brazil, Hong Kong, Japan, and the Republic of China.

As a major export state, Illinois has a large stake in efforts to increase commerce with other countries. An Illinois State Chamber of Commerce study commissioned from University of Illinois economist James Heins in 1981 estimated that a 10% increase in agricultural commodities and manufactured goods would create 21,000 new jobs in Illinois, producing an increase in personal income of $400 million and also $17 million in additional revenues to the state from Illinois income and sales taxes.[31] And, according to a recent report, Illinois business representatives who go abroad to make new business contacts are estimated to have a return of 1:250 on their investment - that is, for each $1,000 of cost for the trip they may get $250,000 worth of new business.[32] But instead of an increase, for a number of reasons there has been a decline in Illinois exports

in the last few years, leading to a reduction in national rank from first to second in dollar volume of all agricultural export commodities. The Illinois Department of Commerce and Community Affairs estimates that declining exports in 1983 affected 10% of the state's total economy.[33]

Economic Development and Language Proficiencies. In order to sustain and augment the high volume of international trade and finance needed in the U.S. and in Illinois, there is a growing understanding in the business community and among Illinois government officials promoting the state's trade that increasing competition and internationalization of the business environment, both in Illinois and in world markets, demand that business skills include competence in the language and sensitivity to the culture of the client.

In an address to the International Business Council MidAmerica in Chicago in November 1984, the Lieutenant Governor, who serves as Chairman of the Illinois Export Council, took the point of view that the state's future economic strength as one of the nation's leading export states rests on language competence and understanding of other cultures.[34] Also, in its 1985 economic development plan for the next five years, Illinois, Jobs for the Future, the Illinois Department of Commerce and Community Affairs makes four recommendations for "investing in Illinois' human resources." One of these recommendations calls for expanded and improved second language

programs in elementary, secondary and postsecondary schools in order to provide educational opportunities attuned to "Illinois' operation in a world economy."[35]

The interrelation of excellence in education and economic development in Illinois has emerged very clearly in the last two years.[36] At the same time, the essential role of second language and international studies in economic development in Illinois has been addressed in reports based in and directed toward the education community.[37] The recommendations of the Lieutenant Governor and of the Department of Commerce and Community Affairs, also directed at the education community, are however based in the business community and thus provide the consensual link between the two most immediately interested communities.

Conclusion

The multiple interconnections of state, national and world economies are extensive. While fiscal, monetary, and trade policies have a major influence on developments in international trade, the presence or absence of language and international proficiencies cannot be ignored as inconsequential. Structural changes in the world economy are accompanied by shifts in economic power. Some indicators of such shifts for the U.S. and state economies are a declining share of world markets, trade deficits, status as a debtor nation, and location and control of essential resources. These shifts imply changes of demand and

of expectations in world markets and changes in the way these new expectations are communicated. Part of the structure of power transactions is that the negotiator with relatively more power has greater latitude in controlling essential terms and conditions under which the transaction takes place, including the language used. English cannot be assumed to be the language of international trade when competitors for shares of world markets adapt their approach to the needs and conditions of their clients. Consequently, structural changes in the interconnected state, national and world economies require adjustments that include not only changes in national monetary and trade policies and in the business and work climate of individual states, but also adequate responses in the development of human resources in attention to the role of language and international proficiencies in transactions in the world economy.

Responses to state and national demand for second language and international proficiencies are increasingly evident in the trend in higher education toward internationalized curricula. Such curricula are characterized by combinations of majors in the disciplines with second language and international studies. Current increases in world trade and investment and the resulting interdependence of nations require business managers with international sensitivity, the former Dean of the College of Commerce and Business Administration at the University of

Illinois-Urbana, Vernon K. Zimmerman, said in 1984.[38] In order to meet that demand, university curricula in business, agriculture, economics, and other professional and research disciplines are rapidly integrating second language and international studies. At the University of Illinois, undergraduate programs already combine second language and international studies with business administration, marketing, accounting, economics, and agriculture.[39] At the graduate level, an MBA with Certificate in International Business is available. Another example is the University of Pennsylvania's Wharton School of Business, which offers an internationalized and interdisciplinary dual MBA/MA program requiring a high level of language proficiency for admission. The university requires of program applicants proficiency in at least one foreign language, knowledge and understanding of specific countries, and an appreciation of the cultural aspects of life in a global environment. The program, set up with a $10 million grant from Estée-Lauder, Inc., is intended to respond to "the 'megatrend' shift from a national economy to globally interdependent economies."[40] As Leonard Lauder, the President and Chief Executive Officer of the company said in explaining the motivation for this sizable grant: "Americans conducting business overseas [are] at a disadvantage because they [do] not understand the language, the culture, or the customs of other people. Unless we learn to compete on a global scale, America's

position as a major industrial nation will decline."[41]

Epilogue: Cooperative Action

Foresight counsels us to act now for the demands of both the present and the future. Learning a second language to a usable level of proficiency is not a short-term enterprise. It is both a personal and a social challenge. As a social undertaking, it will require cooperation not only between the business and education communities, but also between the secondary and post-secondary levels of education. Schools and universities must work together to create the conditions for favorable learning outcomes. These conditions include at least a coordinated sequence of instruction, curriculum innovation and flexibility, materials development and dissemination, and the application of effective teaching methods. In an atmosphere of collegiality, we can all learn from each other as we meet the challenges of education in the world system for the 80's and beyond.

Notes

[1] Ervin Laszlo, "Uses and Misuses of World System Models," in The World System. Models, Norms, Applications, ed. Ervin Laszlo (New York: Braziller, 1973), p.3.

[2] Ibid.

[3] See Donella Meadows, Dennis Meadows, et al., The Limits to Growth (New York: Signet, 1972).

[4] See Mihajlo Mesarovic and Eduard Pestel, Mankind at the Turning Point (New York: Dutton, 1974).

[5] See Ervin Laszlo et al., Goals for Mankind (New York: Dutton, 1977).

[6] See Juergen Hoegl, The Role of Foreign Languages in Developing the Resources of Illinois (Urbana: University of Illinois Language Learning Laboratory, 1984); Lieutenant Governor George Ryan, "The Need for Mobilizing Resources in the State of Illinois to Create Jobs in International Trade," Address to the International Business Council MidAmerica Conference, Chicago, 14 Nov. 1984, published in Congressional Record, 21 Jan. 1985, pp. S421-23, and in Foreign Language Annuals, vol 18, no. 1 (1985), pp. 73-77; and Illinois Department of Commerce and Community Affairs, Illinois, Jobs for the Future. Five-Year Economic Development Strategy (Springfield: DCCA, 1985).

[7] See Arthur Koestler and J.R. Smythies, eds., Beyond Reductionism. New Perspectives in the Life Sciences (Boston: Beacon Press, 1969).

[8] See Rose Hayden, "Global Literacy Up, But Data Skimpy," State Education Leader (Winter 1985), pp. 4-5.

[9] See President's Commission on Foreign Language and International Studies, Strength Through Wisdom. A Critique of U.S. Capability (Washington, D.C.: GPO, 1979).

[10] See National Commission on Excellence in Education, A Nation at Risk: The Imperative for Educational Reform (Washington, D.C.: GPO, 1983); National Advisory Board, Critical Needs in International Education: Recommendations for Action (Washington, D.C.: U.S. Department of Education, 1983).

[11] Congressional Record, vol. 131, no. 113 (September 12, 1985), p. S11370.

[12] Ibid.; and Chris Lee, "Cross-Cultural Training: Don't Leave Home Without It," Training: The Magazine of Human Resources Development (July 1983), pp. 20-25.

[13] See Doris Walsh, "Around the World," American Demographics (January 1983), p. 2.

[14] See U.S. Department of Commerce, International Economic Indicators, vol. XI, no. 1 (March 1985).

[15] See Ninety-Seventh Congress, Hearings Before the Subcommittee on Postsecondary Education on H.R. 3231, National Security and Economic Growth Through Foreign Language Improvement (Washington, D.C.: U.S. Government Printing Office, 1981); Ninety-Eighth Congress, Report of House Committee on Education and Labor on H.R. 2708, Foreign Language Assistance for National Security Act, Report No. 98-162 (Washington, D.C., 1983); and Congressional Record, vol. 129, no. 114 (August 4, 1983).

[16] See Commission on International Education, What We don't Know Can Hurt Us. The Shortfall in International Competence (Washington: American Council on Education, 1984).

[17] See Note 15, Ninety-Seventh Congress.

[18] See Loren Alexander, "Foreign Language Skills in Manufacturing Firms: Kansas, 1974," Bulletin of the Association of Departments of Foreign Languages, vol. 7, no. 2 (November 1975), p. 33.

[19] See Note 11.

[20] See John Pfeiffer, "Striking the Right Trade Posture," Science 85, vol. 6, no. 7 (September 1985), pp. 80-81.

[21] See Note 15, Ninety-Seventh Congress.

[22] See David King, "Foreign Language, International Studies, and Business Ally to Combat Our 'Appallingly Parochial' Curriculum," Curriculum Update (Association for Supervision and Curriculum Development, Summer 1985), p.4.

[23] See Albert Benderson, "Foreign Languages in the Schools," Educational Testing Service Focus 12 (1983), pp. 1-24.

[24] See James Anderson, "Ad Hoc and Selective Translations of Scientific and Technical Journal Articles," Journal of the American Society for Information Science, vol. 29, no. 3 (May 1978), p. 130.

[25] See F.W. Eyre, "International Technology Transfer--Who Should Learn the Second Language?" Journal of Mechanical Design, vol. 103 (April 1981), pp. 335-41.

[26] Quoted in Peter Knudtson, "Painter of Neurons," Science 85, vol. 6, no. 7 (September 1985), pp. 66-72.

[27] Quoted in Constance Holden, "Global Cooperation in Big Science," Science, vol. 229 (5 July 1985), pp. 32-3.

[28] See Notes 11; 15; and 32, Ninety-Seventh Congress.

[29] See Illinois Department of Commerce and Community Affairs, Illinois Monthly Economic Data Sheets (November, 1983); and Illinois Economic Report, vol. 3 (1984).

[30] Illinois Department of Commerce and Community Affairs, brochure (1983).

[31] See James Heins, "The Impact of Increased Foreign Trade on the Illinois Economy" (Chicago: Illinois State Chamber of Commerce, 1981).

[32] Quoted in Paul Simon, The Tongue-Tied American: Confronting the Foreign Language Crisis (New York: Continuum, 1980), p. 39.

[33] See Illinois Department of Commerce and Community Affairs, Illinois Bi-Monthly Economic Data Sheets (June-July 1985); and Illinois, Jobs for the Future. Five-Year Economic Development Strategy (Springfield: DCCA, 1985).

[34] See Note 6, Lieutenant Governor George Ryan.

[35] See Note 6, Illinois Department of Commerce and Community Affairs.

[36] See Illinois Board of Higher Education, Improving the Effectiveness of Higher Education in Economic Development (Springfield: IBHE, February 1, 1983); and James Thompson, Governor of Illinois, "Special Message on Education to the Honorable Members of the 84th General Assembly" (Springfield: Office of the Governor, February 27, 1985).

[37] See Juergen Hoegl, The Role of Foreign Languages in Developing the Resources of Illinois (Urbana: University of Illinois Language Learning Laboratory, 1984).

[38] Quoted in Office of Continuing Education in International Affairs Bulletin 31 (Summer 1983).

[39] See John Cribbet, "Meeting Global Needs: The Role of Education in Expanding Foreign Trade and Other Challenges of the Future," Address to a joint session of the Illinois House Elementary and Secondary and Higher Education Committee (Springfield, April 19, 1983).

[40] Professor Jerry Wind, Director, Lauder Institute of Management and International Studies, Wharton School of Business, University of Pennsylvania.

[41] Leonard Lauder, quoted in documents of the Lauder Institute, University of Pennsylvania, [n.d.].